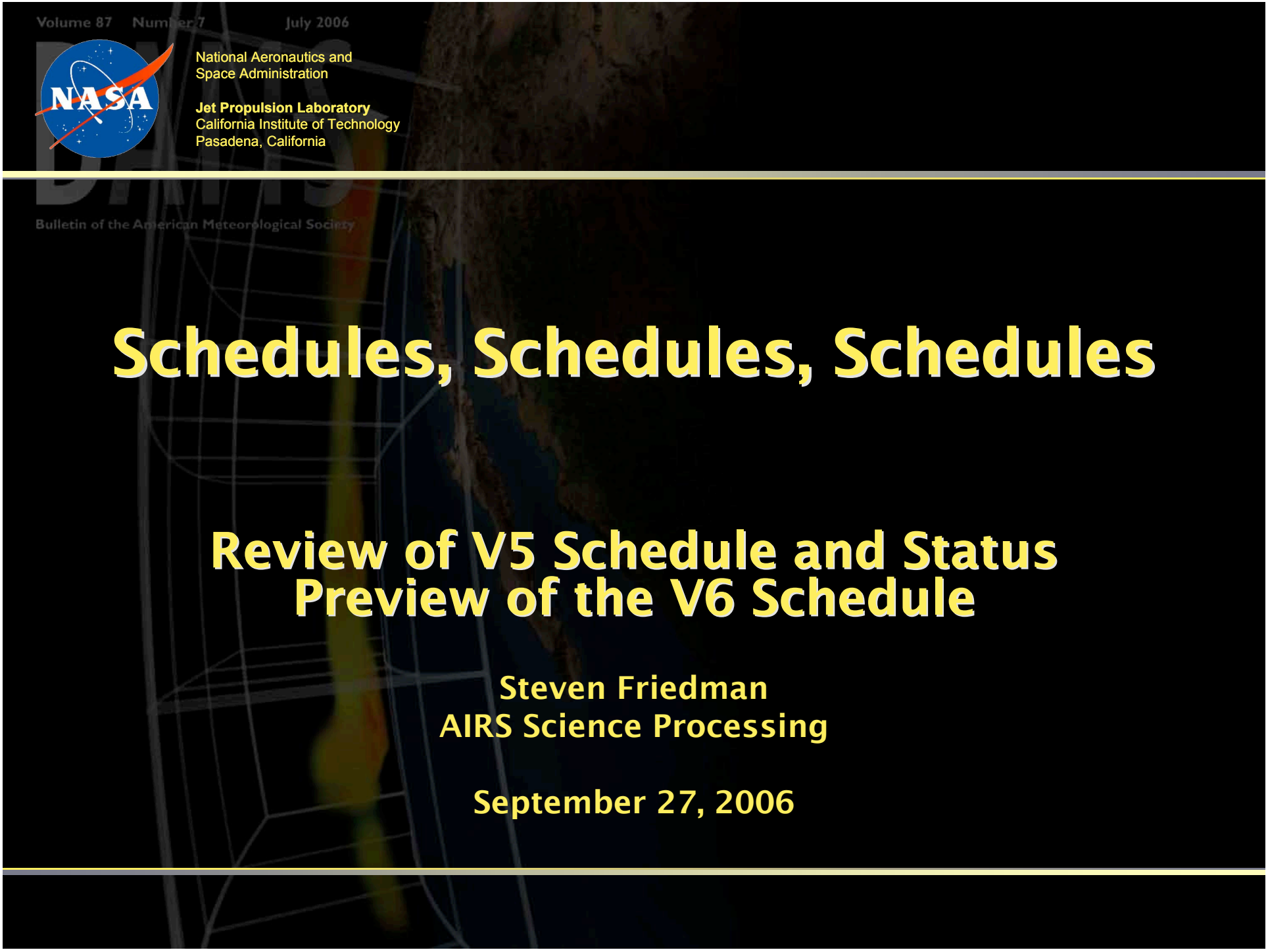
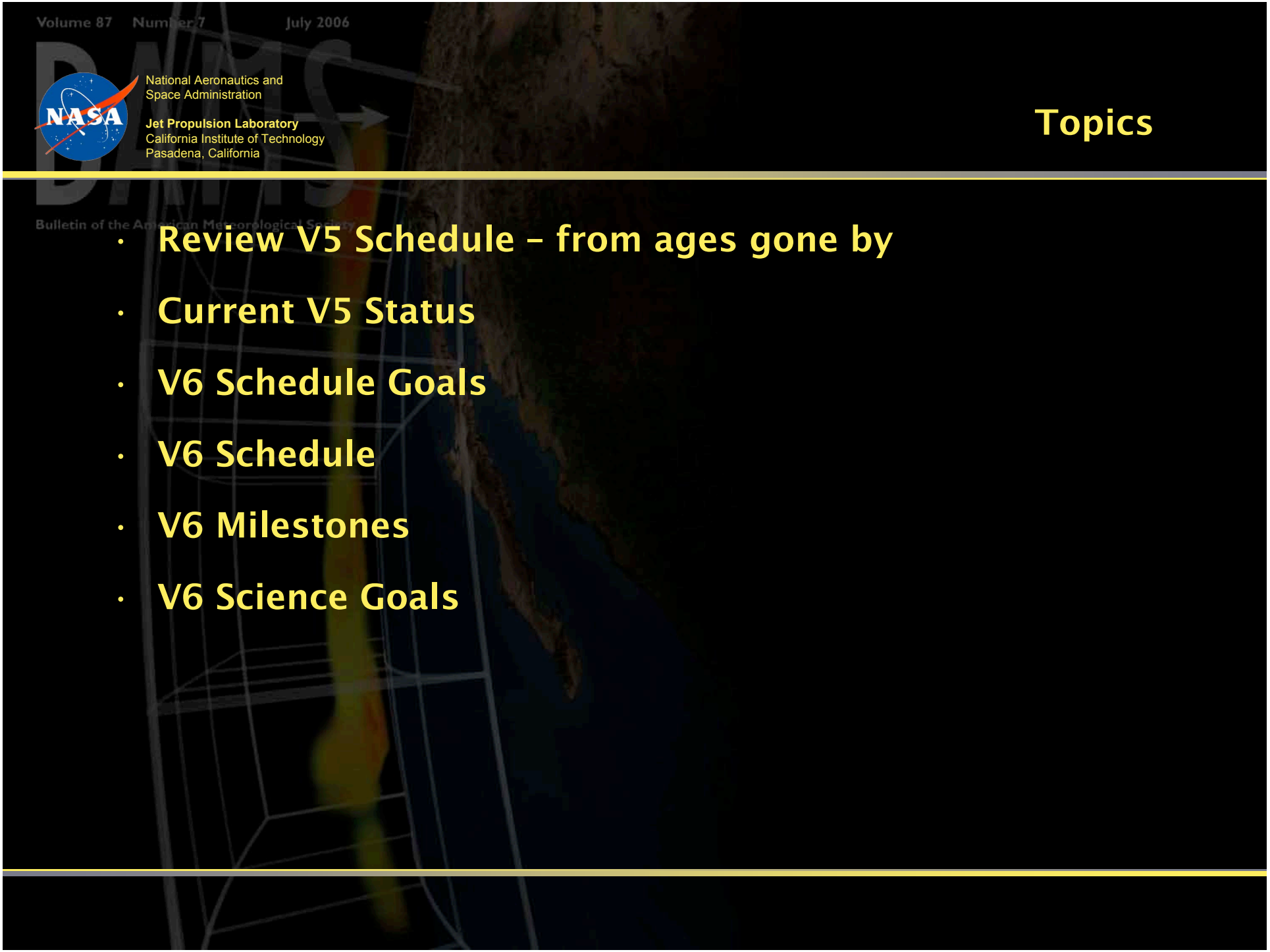


Schedules, Schedules, Schedules

Review of V5 Schedule and Status
Preview of the V6 Schedule

Steven Friedman
AIRS Science Processing

September 27, 2006



Topics

- Review V5 Schedule – from ages gone by
- Current V5 Status
- V6 Schedule Goals
- V6 Schedule
- V6 Milestones
- V6 Science Goals

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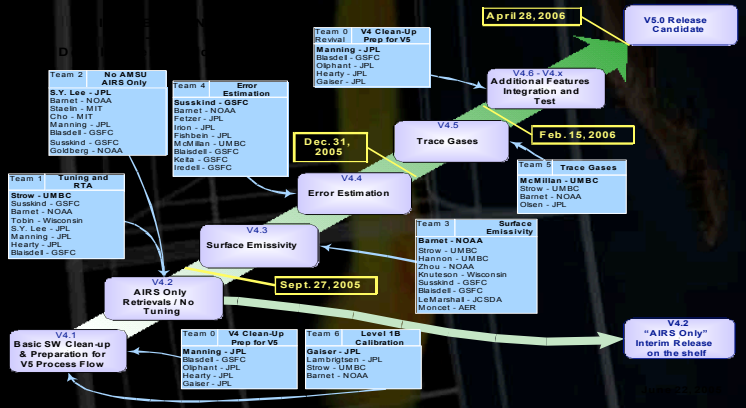
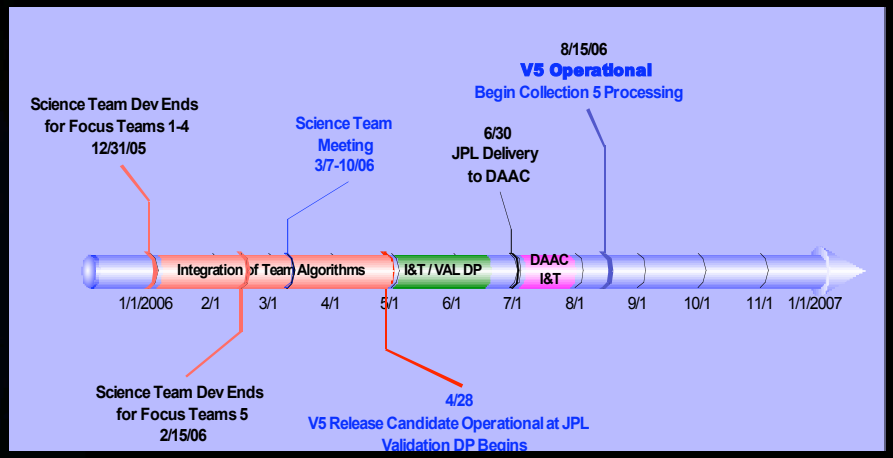
Review V5 Schedule – from ages gone by

- **Planned delivery date for V5 has slipped over time**
  - May 2005 ST MTG – June 1,2006
  - Sept. 2005 ST MTG – June 1, 2006
  - March 2006 ST MTG – June 30, 2006
  - Sept. 2006 ST MTG – October 30, 2006

During September 2005 ST MTG



During March 2006 ST MTG



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Current V5 Status

- **V5 development continued into Summer 2006, responding to issues identified during last Science Team MTG**
  - Mostly L2 – AIRS Only, Error representation and QA, minor constituents
  - Some Level 1B issues remained until quite recently
  - Level 3 programmers had to respond to Level 2 changes
- **We do have a better product now**
- **The software baseline appears to be stabilizing now**
- **With AIRS Project direction supported by your Science Team affirmation, we will move forward with our final build and delivery to the GES DISC**

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Current V5 Status

- **Currently running V4.6.2**
  (V5 beta release candidate …. semi-hardened-concrete)
  - Processed all Focus Days in 3 variants (48-day cycle)
    - Standard retrieval (AIRS + AMSU)
    - AIRS Only (NO AMSU)
    - GSFC Hybrid (AIRS Only retrieval, AMSU QA)
  - Reaching closure: Still working some minor issues
    - Mostly Level 2, one Level 1B remaining
    - Level 3 Support Product still in early design/coding stages (will not hold up delivery for this product)
- **Important Dates:**
  - Code freeze – through Level 2 no later than 13 October 2006
  - Delivery to GES DISC (GSFC DAAC) on 30 October 2006

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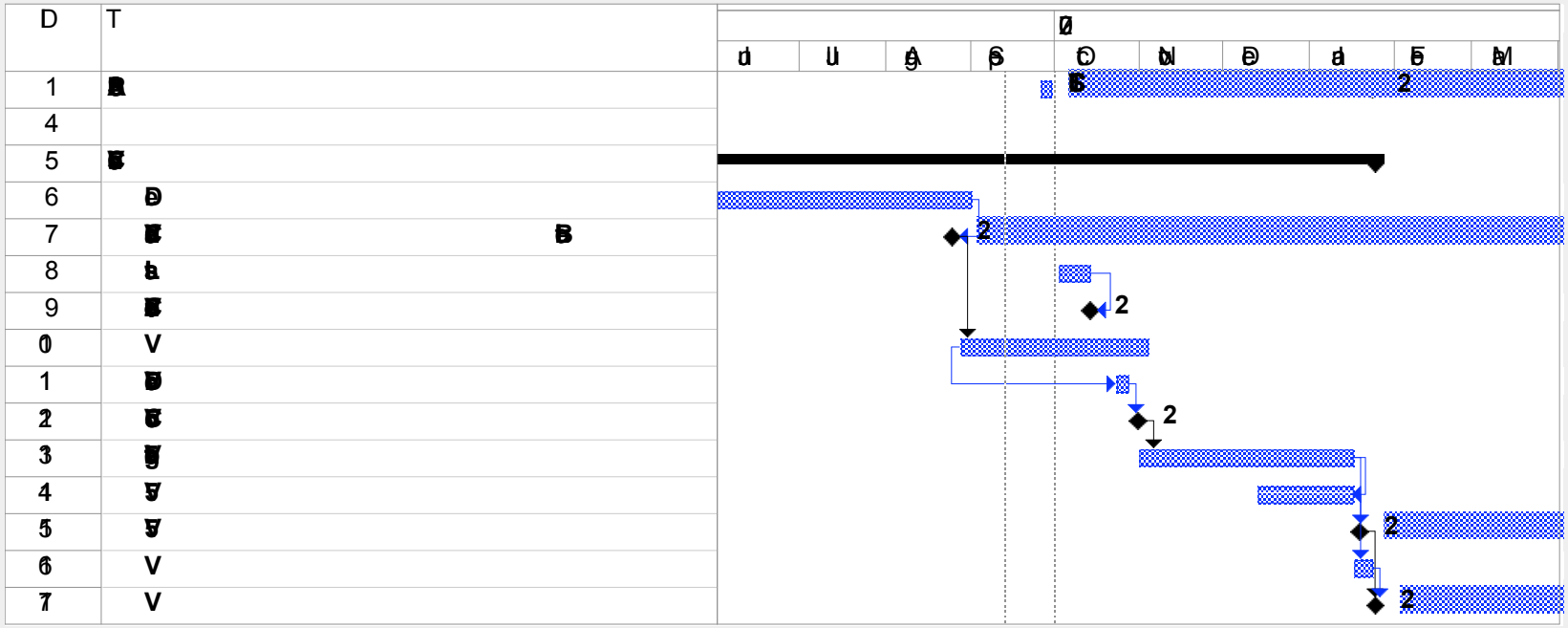
V5 Schedule
Remaining Milestones

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California Institute of Technology
Pasadena, California
Moving onto V6:
Filling in the holes

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V6 Schedule Goals

- **Provide sufficient time to develop a quality product improvement over V5. Time allocated for:**
  - Preliminary investigations and prototyping
  - Development time – greater than 1 year
  - Testing – three months allocated for comprehensive tests
- **V6 Development concept is based on successful V5 Approach**
  - AIRS Project will coordinate development
  - Science Team to lead/support task-oriented "Focus Teams"
  - JPL AIRS Team to support Science Team
  - JPL AIRS software team responsible integration and test
- **Mid-course corrections, status checks at two more Science Team meetings (Spring and Fall 2007)**

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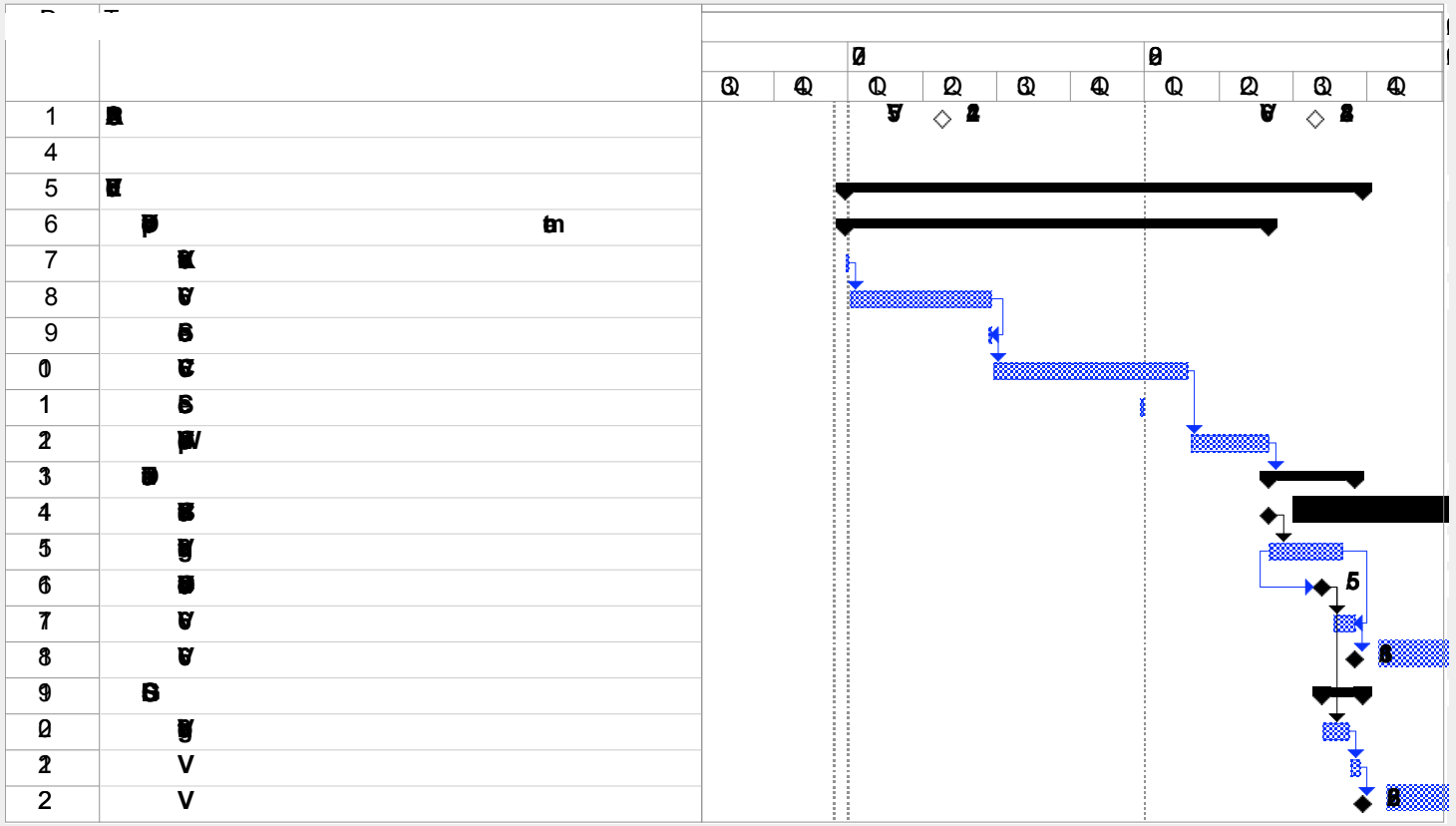
Bulletin of

V6 Schedule



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V6 Milestones

- **Learning from previous version development efforts, we have included sufficient time for all activities:**
  - Preliminary investigations / prototyping – six months
  - Total development time – greater than 1 year
  - Testing – three months

V6 Kickoff – Science Team MTG	**September 2006**
Concept Development and Prototyping	**March 2007**
V6 Content Determination - Science Team MTG	**March 2007**
V6 Development	**November 2007**
V6 Status – closure issues - Science Team MTG	**September 2007**
V6 Code wrap-up (CCB controlled)	**February 2008**
V6 Candidate Build	**February 2008**
V6 Integration and Test	**May 2008**
V6 Delivery to GES DISC	**May 2008**
V6 Operational	**July 2008**

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V6 Science Goals

- **V6 Science Goals – to be determined by the AIRS Project**
  - Science Team input needed
  - Science Team collaboration desired

- **Research Topics:**
  - Emissivity – land surfaces
  - Correction of other pathological cases over land
  - Additional minor constituents
  - …

  - … the choice is ours, and now we'll talk about it.


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Work Remaining
Before V5 Code Freeze

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Work Remaining Before V5 Code Freeze

- **Issues still being resolved:**

1. Use of "GSFC-IR" retrieval as baseline process (MW-assisted AIRS-Only retrieval, aka, *"blended"*)

2. Implement GFS ½ degree data
   - GFS upgrade planned in next few months, date not firm
   - Decision to:
     - Integrate as ½ degree data source
     - or -
     - Degrade back to 1 degree resolution
   - *This is not critical to resolve immediately. There will be at least a six-month overlap in GFS coverage. The upgrade can be delivered as a patch. However, we'd like to deliver it with the V5 delivery.*

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Work Remaining Before V5 Code Freeze (cont'd.)

1. Revert to old cloudy regression – used AMSU for filtering (JPL)
2. Fix JPL cloud retrieval –Type 100 fallback, AIRS-Only (JPL)
3. Solve for LW emissivity – add new retrieval step (GSFC)
4. Update CO first guess, check validity w/RTA (McMillan/Hannon)
5. CO standard product fields - bottom of atmosphere (GSFC)
6. Incorporate RTA Version 9f (Methane bias change) (GSFC)
7. Generate new error estimates (GSFC)
8. Harmonizing Qual Flag / Error Estimate (JPL/GSFC)
9. H2O Saturation Water Vapor Pressure – correction (Fishbein)
10. Tropopause Height – new calculation (Fishbein)
11. Clear Flag to L2 STD Product (JPL)
12. L2 using Match-Up input fails in IR-Only retrieval mode (JPL)

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Work Remaining Before V5 Code Freeze (cont'd.)

- **Still Investigating**
  - Warmest FOV, warmer than clear in Cloud-Clearing (NOAA)
  - *This is not a small issue and has just been identified. It will probably be resolved during the V6 development cycle.*